

WSHU 2005.1 PATENT

ABSTRACT

Many Gram-negative pathogens assemble adhesive pili structures on their surfaces that allow them to colonize host tissues and cause disease. The present invention relates to novel compounds that mimic a chaperone G1 beta-strand or an amino terminal motif of a pilus subunit. The present invention also relates to the complex formed from the binding of such mimic compounds to the hydrophobic groove of a pilus subunit. Competitively interacting with the binding site of pili subunits will negatively affect the chaperone/usher pathway, which is one molecular mechanism by which Gram-negative bacteria assemble adhesive pili structures, and thus prevent or inhibit pilus assembly.

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